

PROCESS FOR IMPROVING THE ETCH STABILITY OF ULTRA-THIN PHOTORESIST

ABSTRACT OF THE DISCLOSURE

An integrated circuit fabrication process is disclosed herein. The process includes exposing a photoresist layer to a plasma, and transforming the top surface and the side surfaces of the photoresist layer to form a hardened surface. The process further includes etching the substrate in accordance with the transformed feature, wherein an etch stability of the feature is increased by the hardened surface. The photoresist layer is provided at a thickness less than 0.25 μm , for use in deep ultraviolet lithography, or for use in extreme ultraviolet lithography.

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